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# Education

**2018-Present:** Combined Master's and Doctoral program in Biomedical Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, South Korea.

**2013-2018:** Bachelor of Science in Electronic Engineering & Computer Science Engineering, Ulsan National Institute of Science and Technology (UNIST), Ulsan, South Korea.

# Research Interests

Robot Tactile Intelligence

Tactile information processing model

Spiking neural network

Data Processing

Machine Learning Algorithms

# Publications

1. **J. Kim**, Y.I. Choi, J.-w. Sohn, S.-P. Kim, S.J. Jung. "Modeling long-term spike frequency adaptation in SA-I afferent neurons using an Izhikevich-based biological neuron model." Experimental Neurobiology. Experimental Neurobiology, 2023, 32(3), 157-169.
2. T. Kim, **J. Kim**, I. You, J. Oh, S.-P. Kim, U. Jeong. "Dynamic tactility by position-encoded spike spectrum." Science Robotics, 7(63), eabl5761.
3. S. Chun, J.-S. Kim, Y. Yoo, Y. Choi, S.J. Jung, D. Jang, G. Lee, K.-I. Song, K.S. Nam, I. Youn, D. Son, C. Pang, Y. Jeong, H. Jung, Y.-I. Kim, B.-S. Choi, **J. Kim**, S.-P. Kim, W. Park, S. Park. "An artificial neural tactile sensing system." Nature Electronics, 4(6), 429-438.

# Conference proceedings

1. **J. Kim**, J. Kim, H. Hwang, J. Kim, D. Park, U. Jeong, S.-P. Kim. "Object shape recognition using tactile sensor arrays by a spiking neural network with unsupervised learning." 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Toronto, Canada, October 2020.
2. M. Choi, **J. Kim**, T. Yang, J. Park, J. Kim, S.-P. Kim, “Development of a neuron-inspired tactile information processing model,” The 18th Int’l Conf. on Control, Automation and Systems, October 2018.